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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,745	01/17/2002	Pankaj S. Parekh	IPOL-0002	3266

7590 07/21/2005

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EXAMINER	
GURSHMAN, GRIGORY	

ART UNIT	PAPER NUMBER
2132	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/052,745	PAREKH ET AL.	
	Examiner	Art Unit	
	Grigory Gurshman	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 5 - 8, 10, 12 - 14, 16, 18-20, 21, 23- 27, 29, 31- 34, 36, 38 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Bhattacharya (U.S. Patent No. 6.587.466 B1).

3. Referring to the instant claims, Bhattacharya discloses a search tree for policy based packet classification in communication networks (see abstract and Fig. 2). Bhattacharya teaches a search tree structure, methods and computer devices for constructing and using the structure to efficiently accomplish policy based service differentiation in packet networks is presented. This invention reduces the number of steps performed to implement packet classification. It uses a method of preprocessing a given set of policy rules by modeling the conditions in the rules as multidimensional hyper-cubes, a simple and compact search tree is constructed. Using this search tree, packet classification is achieved determining all applicable policies for a packet with a few compare and branch instructions (see abstract).

4. Referring the independent claims 1, 14 and 27, the limitation "receiving the packet; determining whether the packet corresponds to a common condition for a first policy rule and a second policy rule" is met by Fig. 5 depicting a selector attribute 530. The "common condition" is met by teaching that the policy conditions are primarily specified in terms of various packet attributes. These attributes include header fields that identify source and destination addresses of the packet, applications identified by the source and destination port numbers, value of the protocol field, type-of-service-byte, etc. (see column 2, lines 17-24). Bhattacharya shows in Fig. 2 that there are a number of different policy types being matched in CPE Engine (220), which meets the limitation "first policy type and the second policy type" recited in the instant claims. The limitation "providing an association between the first packet and the common condition where it is determined that the packet corresponds to the common condition" is met by a selector attribute (packet attributes and criteria used in choosing policy rules) –see column 2, lines 27-30.

5. Referring to clam 3, 12, 16, 25, 29, 38 Bhattacharya discloses determining whether the packet corresponds to a particular condition for the first policy rule (see Fig. 5 and 6, selector attributes and left and right bounding.

6. Referring to claim 5, 13, 18, 26, 31 and 39, Bhattacharya teaches using the rule search tree (see abstract), which contains sets of rules associated with the conditions for determination of the policy applicable to the packet.

7. Referring to claims 6, 7, 19, 20, 32 and 33, Bhattacharya inherently teaches that policy types are selected from firewall, quality of service and intrusion detection

because he mentions these types in the background of invention section (columns 1 and 2).

8. Referring to claims 8, 10, 21, 23, 24, 34 and 36, Bhattacharya teaches the limitation "determining whether the packet corresponds to the common condition as evidenced from the session" by teaching using the source and destination addresses of the packets as one of common conditions (see Fig. 3).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 2, 4, 9, 11, 15, 17, 22, 28, 30, 35 and 37, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhattacharya (U.S. Patent No. 6.587.466 B1) in view of Lyons (U.S. Patent No. 6.075.798).

11. Referring to the instant claims, Bhattacharya discloses a search tree for policy based packet classification in communication networks (see abstract and Fig. 2). Bhattacharya teaches a search tree structure, methods and computer devices for constructing and using the structure to efficiently accomplish policy based service differentiation in packet networks is presented. This invention reduces the number of steps performed to implement packet classification. It uses a method of preprocessing a

given set of policy rules by modeling the conditions in the rules as multidimensional hyper-cubes, a simple and compact search tree is constructed.

Bhattacharya teaches providing an association between the first packet and the common condition where it is determined that the packet corresponds to the common condition in a form of a selector attribute (packet attributes and criteria used in choosing policy rules) –see column 2, lines 27-30. Bhattacharya, however does not teach, appending an extension to the packet and updating a bit location in the extension for providing the association between the packet and the common condition.

12. Referring to the instant claims, Lyons discloses extended header for use ATM adaptation layer type 2 packets (see abstract). Lyons teaches that Processor 155 transmits a coding point value of 17 in the RES field of the next AAL-2 packet and appends an extended header (EH), where the 0th bit of EH is set to 1 and the remaining four bits convey the appropriate sequence number (see column 9, lines 30-35 and Figs. 6-7).

13. Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the network system of Bhattacharya, wherein the packet is associated with the common condition, by appending the extended header of the packet and updating bit locations as taught in Lyons. One of ordinary skill in the art would have been motivated to modify the network system of Bhattacharya, wherein the packet is associated with the common condition, by appending the extension to the packet and updating bit locations as taught in Lyons for implementing the change in the coding mode (see Lyons, Fig. 11).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grigory Gurshman whose telephone number is (571)272-3803. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571)272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Grigory Gurshman
Examiner
Art Unit 2132

GG

GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
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